Published in final edited form as:
J Epidemiol Community Health. 2011 July ; 65(7): 600–605. doi:10.1136/jech.2009.102228.

Heavy drinking in early adulthood and outcomes at mid life

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Abstract

Background—Heavy drinking in early adulthood among Blacks, but not Whites, has been found to be associated with more deleterious health outcomes, lower labor market success and lower educational attainment at mid-life. This study analysed psychosocial pathways underlying racial differences in the impact of early heavy alcohol use on occupational and educational attainment at mid-life.

Methods—Outcomes in labor market participation, occupational prestige and educational attainment were measured in early and mid-adulthood. A mixture model was used to identify psychosocial classes that explain how race-specific differences in the relationship between drinking in early adulthood and occupational outcomes in mid-life operate. Data came from Coronary Artery Risk Development in Young Adults, a longitudinal epidemiologic study.

Results—Especially for Blacks, heavy drinking in early adulthood was associated with a lower probability of being employed in mid-life. Among employed persons, there was a link between heavy drinking for both Whites and Blacks and decreased occupational attainment at mid-life. We grouped individuals into three distinct distress classes based on external stressors and indicators of internally generated stress. Blacks were more likely to belong to the higher distressed classes as were heavy drinkers in early adulthood. Stratifying the data by distress class, relationships between heavy drinking, race and heavy drinking—race interactions were overall weaker than in the pooled analysis.

Conclusions—Disproportionate intensification of life stresses in Blacks renders them more vulnerable to long-term effects of heavy drinking.

Heavy alcohol consumption in early adulthood can have negative consequences on health[12] and health behaviours[13–10] in later life. Heavy drinking can also adversely affect subsequent

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Competing interests None.

Ethics approval Approval was obtained from the Duke University IRB.

Provenance and peer review Not commissioned; externally peer reviewed.

work productivity and employment outcomes[11–13] and occupational attainment indirectly through its detrimental effect on educational attainment and successful social relationships.[1415]

A factor leading to negative life consequences of heavy drinking is race. Whites drink more, on average, than Blacks.[16–18] However, heavy-drinking Blacks experience higher levels of alcohol-related problems than do heavy-drinking Whites, measured by alcohol dependence,[1920] social and financial problems[20] and heart-disease risk.[21] Braun *et al*[22] used data from the first 10 years of Coronary Artery Risk Development in Young Adults (CARDIA), finding that heavy daily drinking in young adulthood was associated with lower odds of employment a decade later for Blacks but not Whites. The tendency for Blacks to experience greater levels of alcohol-related consequences was reversed at higher incomes.[192023]

Costanzo *et al*,[16] using CARDIA, found that psychological characteristics and social life experiences were strongly associated with alcohol consumption trajectories. For persons with good psychological resilience, heavy drinking declined in the post-college-age years. For more psychologically vulnerable persons, a group disproportionately composed of Blacks, early adulthood heavy drinking more likely persisted. More recently, Sloan *et al*[24] found that black heavy drinkers in early adulthood were more likely than black occasional drinkers to be non-employed at mid-life.

Using CARDIA data, this study extends Sloan *et al*[24] to examine the role of psychosocial factors in accounting for racial differences in mid-life correlates of early-life alcohol consumption. We re-examined differences in relationships between early heavy drinking at ages 18–25 and educational attainment and labor market outcomes for Blacks versus Whites 15 years later. After accounting for psychosocial risk factors possibly associated with heavy drinking, we discerned whether or not racial differences between heavy drinking in early adulthood and mid-life negative consequences are altered. Using mixture modeling, we identified groupings of individuals based on their performance on multiple independent measures we termed “psychosocial classes”. We then explored the impact of probable membership in each class on longitudinal relationships between early alcohol consumption and later-life outcomes.

METHOD

Sample

CARDIA is designed to assess antecedents of cardiovascular disease risk. CARDIA has collected data on employment, physical measurements, personal activities, personal and family histories and physiological and psychological variables.

During 1985–1986, 5115 persons aged 18–31 were recruited from four US cities—Birmingham, Chicago, Minneapolis and Oakland, CA. At baseline, the study population was balanced by age (18–24, ≥25), sex, race (Black/White) and educational attainment. Participants were reexamined in 1987–1988 (retention rate 90.5%), 1990–1991 (85.7%), 1992–1993 (80.6%), 1995–1996 (78.5%) and 2000–2001 (73.6%). Retention rates did not differ by alcohol or illicit substance use.[25]

By year 15, retention was 73.6% from inception. Men and Blacks were more likely to have died ($p<0.001$) and less likely to participate at follow-up ($p<0.001$). There were no differences in attrition by baseline drinking status.

Analytic approach

We analysed three *dependent variables*, all for year 15: nonemployed (non-employed=1; employed=0); occupational prestige conditional on being employed (range 17–86); and years of schooling completed (range 7–20).

Occupational prestige was measured by a National Opinion Research Centre (NORC)[26] scale. The NORC scale is noncontinuous, with scores from 17 for food preparation to 86 for physicians.[22] Higher scores correspond to occupations with increased social standing and (typically) higher salaries.

Explanatory variables were demographic characteristics—Black race, male sex and age; heavy drinking; heavy drinking interacted with Black race; non-employment status and educational attainment. Alcohol consumption was ascertained by requesting information on the number of drinks consumed weekly.[27] We defined heavy drinking at baseline as consumption of ≥21 alcoholic beverages weekly for men and ≥14 for women.[2]

Latent class analysis

We applied Latent class analysis[28] to define plausible classes of psychological distress. A mixture model evaluates the proposition that ≥2 underlying populations are "mixed" in the sample. We hypothesised that there are specific "types" measured by psychosocial and stress variables which differ qualitatively in their problem drinking patterns, beyond what could be predicted by the individual component measures.

The latent classes, selected on the basis of a sample-size-adjusted Bayesian Information Criterion, were compared to drinking behaviour. These classes were then incorporated into the analysis of associations between drinking behaviour and occupational attainment by stratifying the sample according to the inferred psychosocial distress level. Our approach permitted an assessment of whether associations between drinking, race and educational or occupational outcomes are similar within groups defined by psychosocial distress level. The *psychosocial variables* used in the Latent Class Analysis came from the six CARDIA interview waves. We measured stress, anxiety, depressive symptoms, anger-in, personal control and optimism with instruments administered by CARDIA. Some variables were only measured once. When there was ≥1 measurement, we treated each as a separate variable. We used the Mplus statistical package.[29]

We measured *external* stressors from the Life Events Questionnaire, administered in Years 0 and 2, derived from the Psychiatric Epidemiology Rating Interview Life Events Questionnaire.[30] The original 102 events, each assigned a weight indicating stress magnitude, were reduced to 67 items by CARDIA. Yes/no responses were elicited for such items as "had problem in school or training program", "fired from a job" and "started a love affair". The life stress score was a sum of weights for life events.

On racial discrimination (Year 15), participants were asked "Have you ever experienced discrimination, been prevented from doing something, or been hassled or made to feel inferior in any of seven situations (at school; getting a job; getting housing; at work; at home; getting medical care and on the street or in a public setting) because of your race or color?"

Internally generated stress was measured by the Cook Medley Hostility Scale (CMHS)[31] (Years 0, 5) John Henryism Active Coping Scale (JHACS).[32] from Year 0, Framingham Type A Scale (FTAS),[33] (Year 2) and the Anger/In questionnaire[34] (Year 5). The MMPI-based CMHS contains 60 true/false questions measuring cognitive aspects of hostility.[35] The scale evaluates cynical hostility or the degree to which persons operate under a "hostile

other" schema.[36] High scorers, or "High-Ho" individuals, attend to and recall hostile acts by others more so than low/moderate scorers. The 12-item JHACS uses a four-category Likert-type scale to assess exceptional mental and physical energy, focussed resolve to realise one's goals and persevering engagement with hard work.[37] The FTAS measures a type-A behaviour pattern involving aggressiveness, ambition, competitive drive, impatience, chronic time urgency and high need for achievement.[3338] Likert-type yes/no and multiple choice questions assess personality traits and emotional responses to daily life and overall life experience. The Anger/In questionnaire, consisting of 3, 3-response Likert-type items and derived from the Rosenman and Friedman Structured Interview,[34] assesses the degree to which experienced anger is focused internally.

Depressive symptoms and anxiety were assessed with the Center for Epidemiologic Studies Depression Scale (CES-D),[39] (Years 5, 10) and the Spielberger Trait Anxiety Inventory (STAI)[40] (Year 5). The 20-item CES-D evaluates dimensions of depressed mood, hopelessness, appetite loss, sleep disturbance and energy level[39] with four-category Likert-type items. The version of STAI used here is the "Trait" half of the 40-item State-Trait Anxiety Inventory (STAI).[40–42] Trait anxiety reflects individual differences in the tendency to respond with unpleasant emotional arousal when facing threatening situations.

Personal control beliefs, about the extent to which (s)he can control/influence life outcomes, were assessed with a questionnaire consisting of seven items (eg, "There is little I can do to change many of the important things in my life" and "I often feel helpless in dealing with the problems of life") answered on a five-point scale: strongly agree to strongly disagree.[4344] These items were reverse-scored, a higher score indicating less personal control.

Optimistic attitude was assessed with a six-item life orientation test containing such questions as "In uncertain times, I usually expect the best" and "I hardly ever expect things to go my way" also answered on a five-point scale: strongly agree to strongly disagree (Year 15).[45]

Statistical analysis

We regressed three *dependent variables*, non-employed, occupational prestige conditional on being employed, and years of schooling completed, on a common set of covariates, all for Year 0. We used multinomial logit to analyse non-employment and ordinary least squares for analysis of occupational prestige and educational attainment. In the analysis of non-employment and occupational prestige, we used two specifications: specification (I) excluded educational attainment at Year 0; specification (II) included the full set of regressors. To determine the influence the explanatory variables on latent class membership, we regressed group membership on the covariates used in the multinomial logit analysis. Finally, we repeated the analysis, this time stratifying by latent class membership. The final statistical analyses were conducted using STATA V.8.2 (STATA, College Station, Texas, USA).

RESULTS

Nearly 10% of sample persons were not employed at Year 15 (table 1). Mean occupational prestige was 48.8, roughly equivalent to a real-estate agent, sheriff or an insurance underwriter; mean number of years of schooling completed was 14.9. At baseline, 6.1% were heavy drinkers and 2.9% were both Black and heavy drinkers. Mean age was 24.8. Blacks were more likely not to be employed at Year 15 (table 2). Heavydrinker Blacks at baseline were much less likely to be employed at Year 15 than other Blacks. However, for Whites, heavy drinking at baseline was not associated with being nonemployed at Year 15.

Blacks had lower levels of occupational prestige at Year 15 than did Whites. Black heavy drinkers were not more likely than White heavy drinkers at baseline to have experienced lower occupational prestige at Year 15. With baseline education excluded, both White and Black heavy drinkers at baseline had lower occupational prestige at Year 15. However, with baseline education, the parameter estimate on being a heavy drinker, although positive, was not statistically significant. Heavy drinking at baseline was associated with lower educational attainment at Year 15 for both races. There was no statistically significant interaction between race and heavy drinking at baseline in the analysis of educational attainment at Year 15. Overall, there is partial support for a stronger relationship between heavy drinking in young adulthood and reduced labor market success in mid-life for Blacks than for Whites.

Latent class analysis

The information criteria (principally the sample-size-adjusted Bayesian Information Criterion) indicated that a three-class model was preferred. Three classes yielded a better fit than 2, albeit at the loss of some statistical power. We retained the three-class solution (table 3).

The within-class means for each indicator were scaled such that higher scores indicated greater distress. We assigned the person to the class for which the probability of membership was highest. We labeled the first class the “low distress” class, judging from mean scores on the psychosocial indicators, except for John Henryism. The “moderate distress” class exhibited mean scores substantially above all-sample means on all indicators except John Henryism. The “high distress” class exhibited very high values relative to the all-sample means for all variables, again except for John Henryism; 49.7%, 40.4% and 9.9% were in the low-, moderate- and high-distress classes, respectively.

Differences in mean values among distress groups tend to be larger for the internal than for the external measures. When there were values of the same measure from different CARDIA sets of interviews, patterns were similar but not identical.

Multinomial logit analysis of class membership shows that baseline heavy drinkers were much more likely to be in the moderate- than in the low-distress class, the omitted reference group (table 4). Blacks were much more likely to be in the moderate and high than in the low-distress group with no statistically significant interaction between Black race and heavy drinking.

We further investigated associations between heavy drinking, race and the interaction of these two characteristics within each of the three psychosocial distress classes by stratifying the sample according to psychosocial distress level (table 5). By stratifying the sample, we could determine whether relationships between heavy drinking at baseline, race and educational and labor market outcomes differed when the data were grouped into relatively homogeneous categories in terms of external and internal stress.

Overall, relationships between heavy drinking and labor market outcomes were weaker in the stratified analysis shown in table 5 than the non-stratified analysis shown in table 2. In table 2, ORs for Black implied that Blacks had a higher probability of not being employed at Year 15, and there was a positive interaction between Black and heavy drinking at baseline. In table 5, ORs on neither of these covariates is statistically significant for any distress class. For occupational prestige at Year 15, the negative and statistically significant effect for the main effect for Black in table 2 is maintained for the low and moderate but not the high-distress class in table 5, and the parameter estimates indicate a less strong relationship between race and occupational prestige for the low and moderate distress classes as well. A

2–3-point reduction in occupational prestige for the low- and moderate-distress classes implies a reduction of about 4–6% from prestige's mean. For educational attainment at Year 15, Black race is associated with increased distress in table 5 with a magnitude higher and lower than in table 2. Heavy drinking at baseline decreased educational attainment at Year 15, but heavy drinking is only negative and statistically significant for the moderate distress class in table 5 and, for this class, about the same in magnitude as in table 2.

In comparing the stratified with non-stratified outcomes between tables 2 and 5, it appears that some of the association between racial differences in early-life alcohol consumption and attainment in mid-life is channeled by the disproportionate membership of Blacks in the moderate and high-distress psychosocial classes. After stratification, some disadvantage of Blacks relative to Whites remains, but stratification largely eliminates the disadvantage of Black heavy drinking and heavy drinking more generally at baseline on occupational and educational outcomes at mid-life.

DISCUSSION

Our analysis yielded several important findings. First, especially for Blacks, early-adult heavy drinking was associated with a lower probability of being employed in mid-life. Conditional on being employed, there was a link between Black race and decreased occupational prestige at mid-life, even after controlling for educational attainment at baseline. For educational attainment by mid-life, there were associations between heavy youthful drinking and Black race and diminished educational attainment. However, there were no race-specific differences in the association between heavy drinking in early adulthood and lower subsequent educational attainment.

Second, individuals could be grouped into three distinct distress classes based on both external and internal stressors. Blacks were more likely to belong to higher distressed classes. Mixture modeling yielded groups of individuals that were relatively homogeneous in terms their degree of distress.

Third, stratifying by distress class, relationships between heavy drinking and heavy drinking —race interactions became weaker overall. Although Black race still placed a person at a disadvantage in occupational and educational attainment at mid-life, the associations were not as strong in the stratified analysis.

The nature of the mediating or cause—effect relationships is subject to alternative interpretations. First, heavy drinking at Year 0 may actually increase the likelihood that an individual subsequently entered the moderate distress class. A second interpretation is that early-adult heavy drinking does not change a person's distress level, but a previously high level of distress may cause heavy drinking in early adulthood, may be correlated with distress at mid-life and directly affect labor market outcomes at mid-life. If so, heavy drinking at Year 0 is a compensating mechanism for psychosocial distress already operating at Year 0. If there is a unique long-term heavy-drinking disadvantage for Blacks, it probably reflects greater exposure of Blacks to stressful life conditions.

Our study has several strengths: use of longitudinal data; balanced samples of Whites and Blacks; sampling of persons in four geographic locations in different US regions and use of mixture modeling.

We acknowledge several study limitations. First, we assumed that several psychosocial variables were person-specific and time invariant. For those few measures for which there were several measurements, there was similarity in mean values from different interviews which supports the time invariant assumption. Second, we only measured alcohol

consumption. Other behaviours (eg, drug abuse) may have importantly influenced outcomes at mid-life.[46] Various comorbidities (eg, various forms of mental illness) may be correlated with alcohol consumption early in life. Although by including covariates for comorbidities at baseline, one might over-adjust for these other factors, by excluding such variables, we may have underadjusted for their influence. However, it is not clear that these comorbidities would affect the *relative* importance of early alcohol consumption as related to mid-life outcomes for Blacks as opposed to Whites.

Third, while having a 15-year follow-up is important, many pertinent events plausibly occurred between the baseline year and Year 15. Further, our analysis was not structured to examine changes in drinking behaviour. Future trajectory-oriented analyses may permit additional inferences.

Fourth, CARDIA is not strictly nationally representative. Fifth, given the small size of the high-distress class, there was insufficient power to draw firm conclusions regarding the relationship between early heavy drinking and subsequent outcomes among such persons. This class was disproportionately comprised of Black women who exhibited relatively lower rates of drinking.[1718] When coupled with the greater likelihood of all women to simultaneously function as caretakers and breadwinners,[47] this raises the possibility that Black women differ from other high distress class race—sex groups in alcohol consumption and psychosocial distress.

In sum, heavy drinkers in early adulthood are at risk of achieving lower labor market success at mid-life, and overall, the relationships seem to be stronger for Blacks than for Whites. Although drinking patterns are related to external and internal distress, causal pathways among distress, heavy alcohol use and labor market outcomes remain to be documented.

Acknowledgments

Funding National Institute of Alcohol Abuse and Alcoholism5635 Fishers Lane, MSC 9304Bethesda, MD 20892-9304 Other Funders: NIH.

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What this study adds

Heavy Drinking in early adulthood has been linked to lower educational attainment at mid-life for Blacks but not for Whites. This study shows that Blacks are more subject to psychosocial stress early in the adult life course than are Whites, and at least part of the difference in the longitudinal relationships between heavy drinking and subsequent life outcomes is attributable to greater psychosocial distress among Blacks.

Table 1

Summary statistics at Year 0 and Year 15

Variables	Year 0 Mean	Year 15 Mean
Heavy drinking	6.1%	5.9%
Black	52%	47%
Black×heavy drinking	2.9%	2.6%
Black×non-heavy drinking	49%	45%
White×heavy drinking	3.2%	3.3%
White×non-heavy drinking	45%	49%
Non-employment	30%	9.2%
Years of education at	13.8	14.9
	(2.19)	(2.54)
Occupational prestige		48.8
		(13.90)
Men	46%	44%
Age at year 0	24.8	40.0
	(3.63)	(3.60)
Observations*	5115	3672

When the variable is binary, the mean value is a per cent. Age, occupational prestige and years of education are continuous variables expressed as mean (SD).

*The sample size for Year 0 exceeds that for Year 15 because of sample attrition in the intervening years.

Table 2

Ordinary least squares and multinomial logit analysis of the relationship between educational and labor market outcomes at Year 15 and being a heavy drinker at Year 0

	Non-employment		Occupational prestige		
Explanatory variables	**Specification (I)**	**Specification (II)**	**Specification (I)**	**Specification (II)**	**Years of education**
Heavy drinking	1.049	0.995	−3.670 **	−2.155	−0.522 ***
	(0.474 to 2.320)	(0.450 to 2.202)	(1.18)	(1.12)	(0.14)
Black	1.693 ***	1.466 **	−6.506 ***	−3.321 ***	−0.636 ***
	(1.298 to 2.210)	(1.120 to 1.919)	(0.51)	(0.49)	(0.06)
Black×heavy drinking	2.812 *	2.632 *	−2.049	−0.474	0.116
	(1.106 to 7.147)	(1.032 to 6.714)	(1.90)	(1.74)	(0.21)
Non-employment at Year 0	2.247 ***	2.131 ***	−2.468 ***	−1.773 ***	−0.242 ***
	(1.757 to 2.874)	(1.664 to 2.728)	(0.584)	(0.535)	(0.065)
Years of education at Year 0		0.878 ***		2.659 ***	0.857 ***
		(0.822 to 0.938)		(0.110)	(0.014)
Men	0.681 *	0.677 **	−1.132 *	−1.416 ***	−0.176 ***
	(0.535 to 0.868)	(0.531 to 0.864)	(0.48)	(0.44)	(0.06)
Age at year 0	0.993	1.01	0.027	−0.448 ***	−0.123 ***
	(0.962 to 1.025)	(0.977 to 1.043)	(0.07)	(0.07)	(0.01)

* p<0.05

** p<0.01

*** p<0.001

Results shown in the table are the OR and associated 95% CIs (in parenthesis) for non-employment, and coefficient estimates and associated standard errors for occupational prestige and years of education.

Table 3

Summary statistics of psychosocial variables for three latent classes

Variable (exam year)	Class 1 Low distress Mean	Class 2 Moderate distress Mean	Class 3 High distress Mean
External stress			
Life stress (0)	−0.253	0.230	0.324
Life stress (2)	−0.166	0.170	0.185
Perceived racial discrimination	−0.224	0.219	0.354
Internally generated stress			
Type A personality (0)	−0.254	0.227	0.356
Type A personality (2)	−0.248	0.213	0.431
Hostility (5)	−0.584	0.515	0.955
Depression (5)	−0.561	0.297	1.727
Anxiety (5)	−0.612	0.403	1.568
Anger-In (5)	−0.230	0.171	0.506
Depression (10)	−0.517	0.255	1.739
Depression (15)	−0.489	0.226	1.867
Personal control * (15)	−0.384	0.225	1.258
Optimism * (15)	−0.423	0.283	1.235
Model derived obs †	2547	2105	442

Values used are z transformations of scores on CARDIA administered scales.

* Reverse-coded so that a more positive score represents less active coping (for John Henryism), less sense of personal control or less optimism.

† The number of persons hypothesised to be in each class reflects the output of a mixture modeling process where class membership is treated probabilistically, therefore reported Ns illustrate expected group size but are not actual counts.

Table 4

Multinomial logit analysis of class membership

Explanatory variables	Moderate distress class	High distress class
Heavy drinking	1.614 *	1.788
	(1.063 to 2.451)	(0.918 to 3.481)
Black	2.296 ***	2.540 ***
	(1.943 to 2.712)	(1.965 to 3.283)
Black×heavy drinking	1.626	1.186
	(0.812 to 3.254)	(0.449 to 3.137)
Non-employment at Year 0	1.520 ***	2.160 ***
	(1.280 to 1.807)	(1.687 to 2.765)
Years of education at Year	0 0.821 ***	0.754 ***
	(0.790 to 0.854)	(0.704 to 0.807)
Men	1.331 ***	0.682 **
	(1.142 to 1.551)	(0.536 to 0.869)
Age at Year 0	0.997	1.024
	(0.976 to 1.019)	(0.993 to 1.057)

* p<0.05

** p<0.01

*** p<0.001.

Tabled values are ORs and associated 95% CIs. The low distress class (Class 1) is used as the reference group.

Table 5

Multinomial logit and ordinary least squares analysis of non-employment, occupational prestige, and years of education at Year 15 by distress class

	Low-distress class			Moderate-distress class			High-distress class		
Explanatory variables	**Non-employment**	**Occupational prestige**	**Years of education**	**Non-employment**	**Occupational prestige**	**Years of education**	**Non-employment**	**Occupational prestige**	**Years of education**
Heavy drinking	1.644	−0.321	−0.169	0.387	−3.008	−0.453 *	0.516	3.758	−0.310
	(0.565 to 4.784)	(1.486)	(0.193)	(0.048 to 3.091)	(2.016)	(0.193)	(0.074 to 3.623)	(3.539)	(0.407)
Black	1.104	−2.753 **	−0.390 ***	1.608	−2.397 **	−0.495 ***	0.946	−3.244	−0.839 **
	(0.686 to 1.778)	(0.704)	(0.089)	(0.938 to 2.757)	(0.889)	(0.117)	(0.446 to 2.003)	(2.168)	(0.259)
Black×heavy drinking	0.640	−0.292	−0.488	5.207	−0.455	0.192	5.403	−6.699	0.614
	(0.039 to 10.505)	(4.089)	(0.283)	(0.599 to 45.24)	(2.444)	(0.255)	(0.466 to 62.62)	(6.368)	(0.803)
Non-employment at Year 0	1.438	−1.579	0.054	2.212 ***	−1.060	−0.241 *	2.134 *	−1.134	−0.028
	(0.870 to 2.374)	(0.841)	(0.101)	(1.466 to 3.339)	(0.869)	(0.103)	(1.126 to 4.043)	(1.842)	(0.209)
Years of education at Year 0	1.015	2.706 ***	0.868 ***	0.794 ***	2.426 ***	0.887 ***	0.833 *	2.203 ***	0.837 ***
	(0.915 to 1.126)	(0.152)	(0.018)	(0.704 to 0.896)	(0.210)	(0.027)	(0.713 to 0.972)	(0.494)	(0.060)
Men	0.384 ***	−0.342	−0.097	0.983	−3.079 ***	−0.221 *	1.026	−1.225	−0.705 ***
	(0.234 to 0.631)	(0.601)	(0.073)	(0.660 to 1.464)	(0.777)	(0.094)	(0.539 to 1.956)	(1.732)	(0.215)
Age at Year 0	0.991	−0.612 ***	−0.157 ***	1.002	−0.215	−0.098 ***	1.035	−0.363	−0.079 *
	(0.933 to 1.053)	(0.096)	(0.012)	(0.950 to 1.056)	(0.114)	(0.015)	(0.957 to 1.119)	(0.272)	(0.031)

* p<0.05

** p<0.01

*** p<0.001

Results shown in the table are the OR and associated 95% CIs (in parenthesis) for Non-Employment, and coefficients and associated standard errors for Occupational Prestige and Years of Education. The number of persons assigned to the low distress, moderate distress, and high distress classes are 2547, 2105, and 442, respectively.